REMARKS

Claims 1-15 are currently pending in the application, of which claims 1 and 10 are independent claims.

In view of the following Remarks, Applicants respectfully request reconsideration and timely withdrawal of the pending rejections for the reasons discussed below.

Rejections Under 35 U.S.C. § 102

Claims 1-4 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent No. 6,436,221 issued to Chang, *et al.* ("Chang"). Applicants respectfully traverse this rejection for at least the following reasons.

In order for a rejection under 35 U.S.C. § 102(e) to be proper, a single reference must disclose every claimed feature. To be patentable, a claim need only recite a single novel feature that is not disclosed in the cited reference. Thus, the failure of a cited reference to disclose one or more claimed features renders the 35 U.S.C. § 102(e) rejection improper.

Claim 1 *inter alia* recites:

> "A method for fabricating a field emission display, comprising... depositing an emitter surface treatment agent on the substrate to cover the emitter after forming the emitter… hardening the emitter surface treatment agent…"

Chang fails to teach or suggest each and every feature of claim 1, more particularly, Chang fails to teach or suggest the step of hardening the emitter surface treatment agent. Rather, Chang teaches the application and removal of an adhesive film (col. 2, lines 51-67). Even if the adhesive film of Chang is sufficiently hard or has to be hardened as noted in the Office Action (pages 2-3, paragraph 3), it cannot be assumed that Chang teaches the hardening step. In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent

characteristic necessarily flows from the teachings of the prior art. *Ex parte Tanksley*, 37 USPQ2d 1382, 1385 (Bd. Pat. App. & Int'f 1994). Applicants respectfully submit that the Examiner has failed to meet such a burden of illustrating the claimed limitations are inherent in Chang. Furthermore, the Office Actions mailed on August 5, 2005 and March 17, 2005 admit that "Chang does not disclose the step of hardening the surface treatment, as Chang's surface treatment agent is already hardened before deposition" (emphasis added). Accordingly, Chang fails to teach each and every claimed feature of claim 1.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(e) rejection of claim 1. Claims 2-9 are allowable at least because they depend from an allowable base claim. Since none of the other prior art of record discloses or suggests all the features of the claimed invention, Applicants respectfully submit that independent claim 1, and all the claims that depend therefrom, are allowable.

Rejections Under 35 U.S.C. § 103

Claims 5, 6, 10, 11 and 15 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U. S. Patent No. 6,436,221 issued to Chang, *et al.* ("Chang"), in view of U.S. Patent No. 6,645,402 issued to Kurokawa, *et al.* ("Kurokawa"). Applicants respectfully traverse this rejection for at least the following reasons.

As noted above, Chang fails to teach or suggest each and every claimed feature of claim 1. Kurokawa fails to cure the deficiencies of Chang. Claims 5 and 6 depend from independent claim 1 and are allowable at least because they depend on an allowable base claim.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the reference or

references, when combined, must disclose or suggest all of the claim limitations. The motivation to modify the prior art and the reasonable expectation of success must both be found in the prior art and not based upon a patent applicant's disclosure. *See in re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The examiner has failed to establish a prima facie case of obviousness. There is no suggestion or motivation to modify the references or to combine reference teachings, nor is there a showing of a reasonable expectation of success.

Claim 10 recites *inter alia*:

> "A method for forming a carbon-based emitter, comprising… heating the surface treatment agent for forming a treatment film."

The Office Action states that it would have been obvious to combine Chang in view of Kurokawa in order to realize a highly efficient electron emitting device (page 5). However, the invention of Chang already provides the benefit of increasing the current density of the emitter with a simple, low cost, and easy process (col. 4, lines 26-35). Adding the heating step of Kurokawa unnecessarily complicates the method of Chang, which already successfully produces a highly efficient emitter using a simple taping process. Therefore, there is no suggestion or motivation to modify Chang in view of Kurokawa.

Assuming *arguendo* that a motivation exists to combine Chang and Kurokawa, there is no reasonable expectation of success when adding Kurokawa's heating process to Chang's method for fabricating a field emission display. Chang discloses the method of fabricating a field emission display by attaching an adhesive film on the cathode substrate and then removing the adhesive film (col. 2, lines 51-67). Since there is no indication of how the adhesive or polymer film of Chang would react to heat, a positive effect cannot be assumed. Hence, there is no reasonable expectation of success to include the heating process of Kurokawa with forming the adhesive film of Chang.

The Office Action states on page 11:

> "By using the heating process of the Kurokawa reference with the adhesive film of the Chang reference, it will soften the adhesive film and provide higher adherence therefore enhances contact between the adhesive film and the CNT substrate and thus the adhesive film will remove even more badly attached CNT while pulling the buried CNT into a proper direction."

It is questionable whether or not combining the adhesive film of Chang with the heating process of Kurokawa would actually provide such advantages. It seems just as likely that the heating process would damage the film or the substrate instead, as no mention of heating is made by Chang. Thus, the Examiner appears to be taking Official Notice by summarily concluding that the above benefits of combining Chang and Kurokawa exist.

According to MPEP 2144.03:

> "Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be "capable of such instant and unquestionable demonstration as to defy dispute" (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961))."

Applicants are uncertain about the basis of the Examiner's position as the benefits of the asserted combination are not "capable of instant and unquestionable demonstration as being well-known." Therefore, if the rejection is to be maintained, Applicants respectfully request an assertion of Official Notice.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claims 5, 6, and 10. Claims 11-15 are allowable at least because they depend on an allowable base claim. Since none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicants respectfully submit that dependent claims 5 and 6, independent claim 10, and all claims that depend therefrom, are allowable.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U. S. Patent No. 6,436,221 issued to Chang, *et al.* ("Chang"), in view of U.S. Patent No. 6,623,720 issued to Howard, *et al.* ("Howard"). Applicants respectfully traverse this rejection for at least the following reasons.

As noted above, Chang fails to teach or suggest each and every claimed feature of claim 1. Applicants note that U.S. Patent No. 6,623,720 is issued to Thompson, *et. al.*, not Howard, *et. al.* as indicated in the Office Action (page 6, paragraph 6). Applicants believe the citation is meant to read, "U.S. Patent No. 5,848,925, issued to Howard, *et. al.*" Howard fails to cure the deficiencies of Chang. Claim 7 depends from independent claim 1, and therefore is patentable for at least the reasons discussed above.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claim 7. Since none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicants respectfully submit that claim 7 is allowable.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U. S. Patent No. 6,436,221 issued to Chang, *et al.* ("Chang"). Applicants respectfully traverse this rejection for at least the following reasons.

As noted above, Chang fails to teach or suggest each and every claimed feature of claim 1. Claim 8 depends from independent claim 1, and therefore is patentable for at least the reasons discussed above.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claim 8. Since none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicants respectfully submit that claim 8 is allowable.

Claims 9, 13 and 14 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U. S. Patent No. 6,436,221 issued to Chang, *et al.* ("Chang"), in view of U.S. Patent No. 6,645,402 issued to Kurokawa, *et al.* ("Kurokawa"), and in further view of U.S. Patent No. 6,013,238 issued to Murata, *et al.* ("Murata"). Applicants respectfully traverse this rejection for at least the following reasons.

As noted above, Chang and Kurokawa fail to teach or suggest each and every claimed feature of claim 1. Murata fails to cure the deficiencies of Chang and Kurokawa. Claim 9 depends from independent claim 1, and therefore is patentable for at least the reasons discussed above.

As noted above, Chang and Kurokawa fail to teach or suggest each and every claimed feature of claim 10. Murata fails to cure the deficiencies of Chang and Kurokawa. Claims 13 and 14 depend from independent claim 10, and therefore are patentable for at least the reasons discussed above.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claims 9, 13 and 14. Since none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicants respectfully submit that dependent claims 9, 13 and 14 are allowable.

Claims 12 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U. S. Patent No. 6,436,221 issued to Chang, *et al.* ("Chang"), in view of U.S. Patent No. 6,645,402 issued to Kurokawa, *et al.* ("Kurokawa"), and in further view of U.S. Patent No. 6,623,720 issued to Howard, *et al.* ("Howard"). Applicants respectfully traverse this rejection for at least the following reasons.

As noted above, Chang fails to teach or suggest each and every claimed feature of claim 1. Applicants note that U.S. Patent No. 6,623,720 is issued to Thompson, *et. al.*, not Howard, *et. al.* as indicated in the Office Action (See Office Action, page 6, paragraph 6). Applicants believe the citation is meant to read, "U.S. Patent No. 5,848,925, issued to Howard, *et. al.*" Howard fails to cure the deficiencies of Chang and Kurokawa. Claim 12 depends from independent claim 10, and therefore is patentable for at least the reasons discussed above.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claim 12. Since none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicants respectfully submit that claim 12 is allowable.

CONCLUSION

Applicants believe that a full and complete response has been made to the pending Office Action and respectfully submit that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicants respectfully submit that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicants' undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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